

Pyrowell is a combination of Infrared Non-contact pyrometer and a one end closed sighting tube. In this model the optical head on top of the Ceramic well is connected to a signal cable and the other end of signal cable is connected to Electronics Box. Electronics part of the sensor is separated from the process atmosphere through a well insulated signal cable. This system gives an economic and very accurate temperature measuring solution for high temperature. Since it's a non-contact device, it gives trouble free operation for years. The one end closed sighting tube works as a perfect black body hence like other Infrared sensors no need of setting of emissivity. The one end closed tube assures very high accuracy of measurement.

Precious metal Thermocouples like Type R, S & B are used in very high temperature applications. Since the elements are made of Platinum and Rhodium these thermocouples types are very expensive. These Thermocouples are very fragile to shock and vibration. Also, ingress of gases through the protection tube will also deteriorate the Precious metal and will affect the accuracy and life. While thermocouples are reliable temperature measurement devices, they do drift with time. Maximum exposure temperature, cyclic measurements, and frequency of the cycles affect the metallurgy with a resultant drift, usually downward. Unfortunately, this drift cannot be predicted and rectified. Replacement of sensor is the only solution, keeping that mind Tempsens came up with Pyrowell as an alternate means of temperature measurement.

System can be field calibrated and any drift after years of operation can be re-calibrated and can be fixed to the claimed accuracy with out removal of the system from the process. It gives analogue output in the range 4-20 mA which can be coupled to the PLC or any existing system.



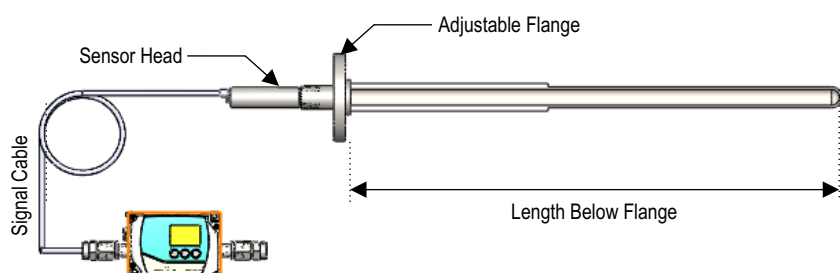
Technical specifications

Model	PYROWELL
Temperature Range (Analog sub-range adjustable)	350°C to 1800°C
Spectral Range	1.6 μ m
Photodetector Type	InGaAs
Response Time	3 sec
Accuracy & Repeatability	$\pm 0.3\%$ of measured value or $\pm 2^\circ\text{C}$ whichever is greater
Analog Output	4 - 20mA/ Thermocouple O/P (K, J, R, S, B)
Digital Output	RS 232/ 485, USB 2.0
Adjustable Parameters and Features via Software	Response Time, Analog Scale (Sub Range), Unit Of Temperature ($^\circ\text{C}/^\circ\text{F}$) etc
Power Supply	24 V DC
Protection Class	IP65
Housing	Optical head-Stainless Steel, Electronic Box: Aluminium
Operatinga Humidity	10-95%, non condensing conditions

Key Features

- High Accuracy
- High Stability
- Cost effective
- Fast Response
- Long Life
- Easy to Install

Ceramic Thermowell Details



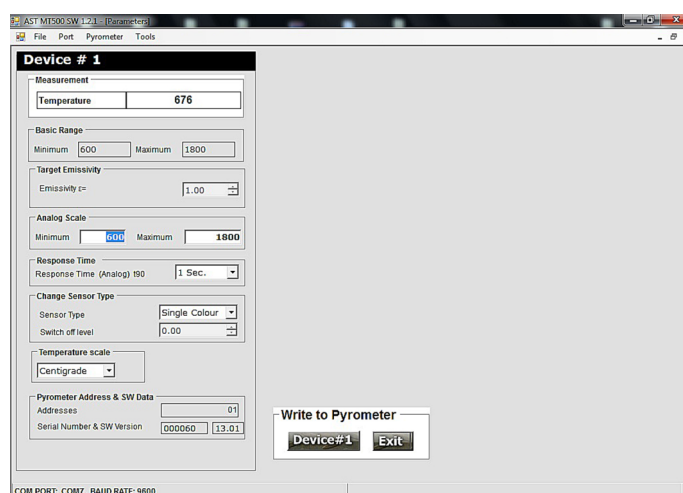
Flange Size	1"
Length below Flange	600, 750, 900, 1000 mm
Ceramic Tube (OD x ID mm)	24 x 18
Ceramic Tube Material	C 799 (99.7% Al_2O_3)

Software "MT500"

AST "MT500" software is under standard scope of supply. It offers possibilities of connecting two pyrometers simultaneously for parameter setting. Communication between the pyrometer and the software is implemented via a cable connected between the pyrometer and the PC serial port. It comes with record feature and parameter settings features.

Some of the parameters adjustable via software are

- Emissivity
- Response Time
- Analog Sub Range
- Unit Of Temperature($^{\circ}C/^{\circ}F$)



Accessories

Power supply Input 110/230V AC
Reference No. 9000 - 02
Output 24 V DC, 0.7Amp.



Ordering Code

Pyrowell

PY

Length Below Flange

(X)

**600
750
900
1000**

Flange Size & Rating

(X)

1"

**#150
#300
#400
#600**

Signal Cable Length(meter)

(X)

**Up to
15 m**

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